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Inappropriate Communication During Internal Medicine Fellowship Recruitment: A Mixed-Methods Analysis

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INTRODUCTION

Inappropriate communication during residency and fellowship recruitment continues to pose major challenges for meeting ethical and policy standards. Violations of the National Resident Matching Program (NRMP) Match Participation Agreements and nonadherence to the NRMP Code of Conduct are widely reported.[1–8] Coercive program behaviors expressly prohibited by Match agreements, such as inquiring about an applicant's rank list, programs of interest, or even geographic preferences, carry considerable potential sanctions, including exclusion from future NRMP matches. Yet, single-site and specialty-specific studies suggest that a majority of Match participants are exposed to such coercion and unethical program conduct. Although voluntary, and therefore nonenforceable, through Match sanction, the NRMP Code of Conduct encapsulates shared community values: applicant right to privacy, local accountability, and avoiding questions based on protected status.

Few studies have focused on the experiences of fellowship applicants who, unlike residency applicants, generally do not benefit from the "dissolution of the explosive offer"[1]—the unexpected and time-bound offer of a position outside of the Match. Although nearly all residency programs opt to register and seek to fill every position through the Match, only 3 internal medicine subspecialties have adopted a policy that programs must secure all positions through the NRMP Specialties Matching Service Match or not participate at all ("all in"). Programs in "all-in" specialties

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represent 17% of internal medicine fellowship applicants[9] and overwhelmingly choose Match participation. Preventing contractual breach with NRMP and mitigating undue pressure on applicants are major considerations for an "all in" shift for a specialty.[10] This study sought to further assess the content and frequency of inappropriate communication for fellowship applicants in internal medicine, which houses nearly 50% of all fellowship positions.[11] Specifically, the authors sought to compare and contrast study findings from Cornett and colleagues,[2] which showed high occurrence of coercive program behavior for internal medicine subspecialty fellowship applicants in 2016, with the 2017 fellowship applicant cohort.

PERSPECTIVES VIEWPOINTS

- Inappropriate communication and problematic program conduct remained a salient issue during the 2017-2018 Internal Medicine fellowship recruitment season.
- Questions frequently violated the National Residency Match Program Code of Conduct and Match Agreement.
- Inquiries about relationship or marital status (53%), family planning (17%), and applications to other programs (61%) were common.
- Forty percent of respondents reported pressure to reveal rank lists at least some of the time.

METHODS

Development and Solicitation of Resident Participation

The authors deployed a modified version of the anonymous survey instrument developed by Cornett and colleagues[2] to assess the frequency of questions involving NRMP violations (eg, were applicants asked to name programs to which they had applied, and were applicants asked to disclose program's rank?) and inappropriate questions about applicant characteristics (eg, age, religion, sexual orientation, relationship/marital status, current or previous plans to have children). Response options included yes, no, and do not recall. Impressions of program director expectation for postinterview communication and perceived pressure to reveal a program's rank position were assessed using multiple choice. Sex, visa/citizenship status, matriculating fellowship specialty, and fellowship and residency program types (community, military, or university) were collected. In 2 open-response questions, applicants were asked to discuss their interview experience and provide suggestions to improve the fellowship interview process. Except for the disqualification question, responses were optional. Applicants were discouraged from providing identifying information. Responses were collected using SurveyMonkey (SurveyMonkey, Inc; San Mateo, Calif). The University of California, San Francisco Committee on Human Research (IRB #17−21,934) approved the survey.

Internal medicine program directors and residency program administrators were asked to forward the survey link to third-year residents. Three requests were posted on the Association of Program Directors in Internal Medicine discussion forum between January and March 2018. Additionally, the authors e-mailed program directors and administrators twice between December 2017 and January 2018. The survey closed in March 2018. Individual results were housed in a secure, online account.

Data Analysis

Quantitative results are reported using descriptive statistics (frequencies). Sex-based proportions and specialty distribution of total population and respondent population were used to compare differences between respondents and nonrespondents. "Do not recall" responses were excluded from analysis. US citizens, permanent residents, and employment authorization document holders, and refugees were combined for analysis, while J-1, H-1B, and other visa statuses were used as a comparison group. A chi-squared test was used to compare differences between groups for categorical responses. An alpha level of .05 was used to determine significance. All statistical analysis was performed using Stata version 14.2 (StataCorp, College Station, Texas).

Emergent qualitative data analysis was performed to examine the free-text anonymized survey data.[12] Seven researchers independently read the entirety of the free-text commentaries for preliminary emergent themes, and then performed a second review of the data to refine the preliminary themes into the final recurrent themes. Any conflict between 2 potential themes for a unique utterance was resolved by majority vote of the 7 researchers.

RESULTS

Of the 969 respondents, 41 were disqualified because they had not applied to a fellowship program during the 2017 recruitment season. Twenty-six of the 928 qualifying respondents did not provide any responses after the initial question. The 902 remaining responses represent approximately 11% of applicants[9] and 22% of matched applicants in internal medicine.[11] Of the 827 responses providing sex self-identification, females made up 41%. The female-to-male proportion among respondents was similar to sex distribution of first-year internal medicine fellows (1:1.4 vs 1:1.7).[13]

Table Frequency of "Yes" Responses to Questions for 2017 IM Fellowship Applicants, χ^2 Analysis Comparing Yes/No Responses of 2017 and 2016 Sub-Groups and Sex/Visa Differences

Code of Conduct	Overall	Female		Male		Sex Differences (2017)	J-1/H-1B/Other		US Citizen/Green Card/EAD/Refugee		Visa/Citizenship Differences (2017)	J-1/H-1B/ Other (2016)	US Citizen/Green Card/EAD/ Refugee (2016)
		n (%)	*P* Value†	n (%)	*P* Value†	*P* Value‡	n (%)	*P* Value§	n (%)	*P* Value§	*P* Value‡		
Age	61 (7%)	21 (7%)	.08	37 (8%)	.13	.42	9 (7%)	.28	50 (8%)	.05	.77	8 (11%)	31 (12%)
Religious affiliation or religious beliefs	26 (3%)	9 (3%)	.73	16 (3%)	.27	.59	5 (4%)	.54	20 (3%)	.08	.63	4 (6%)	3 (1%)
Relationship/marital status	438 (53%)	171 (53%)	.82	249 (53%)	.63	.99	64 (48%)	.62	358 (54%)	.73	.22	32 (44%)	143 (53%)
Sexual orientation	6 (1%)	0 (0%)	—	5 (1%)	.89	—	2 (1%)	.95	3 (<1%)	.60	.16	1 (1%)	2 (1%)
Current or previous plans to have children	137 (17%)	64 (19%)	.08	69 (15%)	.03*	.09	17 (13%)	.98	116 (17%)	.66	.19	9 (13%)	44 (16%)
Match violations													
Fellowship PD asked programs applied to	263 (32%)	98 (30%)	.01*	153 (33%)	.77	.32	47 (36%)	.12	205 (31%)	.22	.32	34 (47%)	91 (35%)
Faculty asked programs applied to	506 (61%)	200 (61%)	.41	287 (62%)	.01*	.82	71 (53%)	.91	419 (63%)	.15	.03*	36 (52%)	153 (58%)
Fellowship PD asked programs ranked	88 (10%)	35 (10%)	.56	47 (10%)	.73	.80	13 (10%)	.79	69 (10%)	.91	.86	6 (8%)	29 (10%)
Faculty asked programs ranked	83 (10%)	29 (9%)	.76	50 (10%)	.54	.37	15 (11%)	.19	64 (9%)	.74	.54	4 (6%)	28 (10%)

Feeling pressured to reveal rank list	Overall	Female n (%)	Male n (%)	Sex Differences (2017) *P* Value‡	J-1/H-1B/Other n (%)	US Citizen/Green Card/EAD/Refugee n (%)	Visa/Citizenship Differences (2017) *P* Value‡
				.10			.98
All of the time	16 (2%)	9 (3%)	6 (1%)		2 (1%)	13 (2%)	
Most of the time	56 (7%)	28 (8%)	24 (5%)		9 (7%)	43 (6%)	
Some of the time	270 (32%)	110 (32%)	151 (31%)		42 (31%)	220 (32%)	
None of the time	503 (60%)	196 (57%)	302 (63%)		83 (61%)	416 (60%)	

*$P < .05$.
†Same-sex differences for 2016 and 2017 cohorts were assessed based on yes/no responses.
‡Female/male sex or visa/citizenship grouping differences were assessed based on yes/no responses for 2017 cohort only.
§Differences between 2016 and 2017 cohorts were assessed based on yes/no responses among those within the same visa/citizenship grouping.

Distribution of respondents' matriculating specialties is similar to specialty distribution of all first-year fellows: cardiology (25% vs 20%), gastroenterology (12% vs 10%), nephrology (5% vs 8%), hematology/oncology (14% vs 11%), and pulmonary critical care (14% vs 11%).[14] US citizens and permanent residents constituted 84% of respondents, while J-1, H-1B, and other visa types composed the remainder.

Questions about relationship/marital status were common among applicants (53%), while questions about current or previous plans to have children were less common (17%) (Table). Thirty-two percent reported that a fellowship program director asked them to disclose other programs to which they had applied. That frequency nearly doubled for faculty other than the program director (61%). Reports of questions to reveal rank list were relatively uncommon (10%). In response to a separate question about how often respondents felt pressure to reveal rank lists, 40% indicated at least "some of the time" (Table). Questions involving other subspecialties to which the applicant had applied (4%) and requests to return for a second visit (6%) appeared infrequently. Nearly one-half of applicants (44%) reported not to have known how program directors felt about postinterview communication. Thirty-six percent reported that program directors encouraged but did not require postinterview communication.

Results showed no sex difference in yes/no responses to questions concerning the NRMP Code of Conduct, Match agreement, or pressure to reveal rank list for 2017 survey respondents (Table). Small percentage differences separated visa holders and US citizens/permanent residents. However, the difference in frequency of questions from faculty about other programs of interest was statistically significant ($P = .03$): US citizens/permanent residents (58%) vs J-1 and H-1B visa holders (52%).

Comparisons of previously unpublished 2016 data and 2017 data show no statistically significant difference in yes/no responses based on sex and citizenship type (Table) for all questions except 3. The yes/no distribution of male responses in 2016 vs 2017 differs for questions about current or previous plans to have children ($P = .03$) and faculty inquiring about other applications ($P = .01$). In both instances, a greater percentage of males reported occurrence of that program conduct in 2017. A greater percentage of females in 2016 (43%) reported that fellowship program directors asked about other programs to which the applicants had applied than in 2017 (30%). Unlike the 2017 survey tool, the 2016 one did not include a question about pressure to reveal rank list.

Qualitative Analysis

Fellowship applicants were asked to describe their interview experiences, and 7 themes were identified and grouped in order of frequency. Of the 370 unique statements, 12 were unclassifiable. Representative quotes of the respective themes follow.

(1) Postinterview Communication − Inconsistent Expectation, Deceptive Statements, or Inappropriate Questions (117 statements)

- "Many program directors explicitly stated that my position on their rank list depended on postinterview communication. That a commitment to rank them first would increase my chances of matching at their program."
- "I had one program spontaneously e-mail me that I would be" very unlikely "not to match there if I ranked them number one—they were my number one choice and I responded as such. I did not match at that program."

(2) Programs Applied/Rank List (88 unique statements)

- "An interviewer demanded to know how many interviews I had and made me rank the programs. When it took several minutes to do so he labeled me 'incompetent'."

(3) Positive Experience (83 statements)

- "Overall it went great. I was able to identify plenty of places where I would see myself happy … Every place I visited people were extremely nice and almost all interviewers made the day go smoothly. Fellows were very honest with me and I appreciated that; I would do the same when I am asked about how happy I am in my program."

(4) Family Planning, Sex-Specific, and Religious Questioning (48 unique statements)

- "I was asked multiple times outright if I was married, what my home life was like, if I have children or planned on it. I purposefully stopped wearing my wedding ring and did not bring my husband up at these interviews, but I answered honestly if asked."
- "I felt quite uncomfortable when asked by the chaplain about religious beliefs."

(5) Cost, Time Away, and Stress (19 statements)

- "The fellowship interview process creates too much discordance in the life of a routine medicine resident."

(6) Visa Status, Country of Origin, or Medical School (8 statements)

- "I'm on a visa which was [a] red flag. Being from Pakistan, half [of] my interview would often start with 'How are things over there?' 'How is the terrorism situation over there?' … I was already at a disadvantage, having to talk about my country of origin rather than myself half the time."

(7) Inconsistent Match Participation (7 statements)

- "Most of the programs I applied to were within the match, but one was outside the match. I think this was the most difficult part of applying & interviewing because I wasn't sure of the process for outside the match positions."

In the second open-ended question, respondents were asked for suggestions to improve the fellowship application process. There were 205 unique statements, of which 10 were unclassifiable. The remaining responses were grouped into 4 themes in order of frequency. Representative quotes of the respective themes follow.

(1) Lack of Clear Postinterview Communication Policies (65 statements)

- "I think a lot of postinterview communication is misleading. It would be best if there was a strongly advised policy to not have postinterview communication."

(2) Expectations for Scheduling, Interview Day Logistics, and Home Program Support (65 statements)

- "I wish there was a standard for communicating and offering interview invites between the various fellowship programs and the applicants."
- "I wish that fellowship interviews can be standardized during a narrow period. This allows residencies to plan around that prespecified time so that schedules can be accommodated."

(3) Interview Day Etiquette (41 statements)

- "It was [common] to be interviewed by someone who did not read my application ahead of time and asked rather personal questions that made me feel uncomfortable."

(4) No Suggestions (34 statements)

- "I wouldn't change anything about it."

DISCUSSION

This study, which yielded more than twice the number of respondents than the previous survey of internal medicine fellowship applicants, largely reflects similar reporting patterns based on 2016 fellowship applicant data. In addition to occurrence of demographic questions, these data suggest that nonadherence to the NRMP Code of Conduct remains a salient issue affecting each cohort of fellowship applicants. We did not find a sex disparity among respondents who reported being asked about family planning and about programs of interest. Further, sex-specific responses generally do not differ from 2016 and 2017 cohorts. Nine percent of males reported being asked about family planning during the 2016 recruitment season, whereas 15% did so the following year. Further study is needed to understand whether increasing male sensitivity to demographic questions, including current or previous plans to have children, explain these differences. The decrease in percentage of females reporting questions from program directors about other programs of interest may be explained by limitations of the 2016 survey because little evidence from the 2017 survey suggests inappropriate communication practices are decreasing.

Similar to the data collected by Cornett et al,[2] there was a higher occurrence of faculty asking about programs of interest for US citizens and permanent residents; whereas fellowship program director inquiries occur more often among J-1 and H-1B visa holders. While only the former is statistically significant, the percentages of reports are concerning during both recruitment periods.

Responses to open-ended feedback solicitation on overall experience and suggestions to improve the recruitment process were combined in one question in 2016 and separated into 2 questions in 2017. Nevertheless, postinterview communication and interview conduct appear as a major negative theme for both years. Representative quotes show continued concerns about the occurrence of potentially unethical and unprofessional program behavior and highlight areas of potential improvement to the process. In addition to eliminating inappropriate questions during interviews, many applicants expressed concerns about the expectations for postinterview communication. Efforts to standardize postinterview communication across fellowship programs, as has been shown to influence program-specific policies,[14] is likely to produce improvements in the applicant experience over time with continuous reinforcement and education. The availability of program tools for faculty development, including mandatory modules or required review of current guidelines prior to each interview season, may have an equally positive impact.

There are several limitations to this study. Selection bias due to nondirect solicitation of study participants is a major limitation. The sample population may not have been representative of the total applicant pool. Nonrandom sampling is a study limitation. The percentage of respondents in each discipline did mirror that of the total NRMP matched internal medicine pool. The survey instrument did not ask about the specific sources of demographic questions. In addition to program representatives, other applicants may have asked these during interview-related activities. Rather than open-ended comments on interview experience and opportunities for improvement, this study may have benefitted from questions more tailored to the research questions. As the survey was anonymous, we are unable to discern whether respondents were evenly distributed across geographic regions. Similarly, it cannot be determined with complete certainty whether an individual responded to the survey multiple times.

We do not consider it a limitation of this study that the survey tool does not assess whether applicants viewed demographic questions as a concern. Such questions from program representatives to applicants adhere neither to the letter nor the spirit of the NRMP Code of Conduct. Relying on applicant attitudes to substantiate the need for change violates the profession's obligation to instill integrity and professionalism in the next generation of physicians. Further, applicants who are unconcerned about questions involving family planning, marital status, or sexual orientation may have unknowingly acclimated to the recruitment culture that itself raises concerns about coercion.

CONCLUSION

Inappropriate communication on the part of programs leads to negative interview and postinterview experiences for internal medicine fellowship applicants. Improvements in the form of a uniform postinterview policy for internal medicine and local training of faculty interviewers are warranted.

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